

UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Thomas, Lucy M. Art Unit: 2836 Docket No. 3765

In re:

Applicant: SCHMIEDERER, C.

Serial No.: 10/591,890

Filed: September 7, 2006

AMENDMENT

October 7, 2009

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia

Sirs:

This communication is responsive to the Office Action of July 7, 2009.

In the Office Action the Examiner indicated that Claims 1-3, 5, 7-8 and 12 were rejected under 35 USC 103(a) over the DeDaran reference in view of the Anthony and Mizumoto references.

Claims 9-10 were rejected as above, and further in view of the Migne reference.

Claim 11 was rejected as above, and further in view of the Honl reference.

Also, the drawings were objected to.

In connection with the Examiner's rejection of the claims over the art, applicants wish to make the following remarks:

The Examiner is of the opinion that amended Claim 1 is unpatenable over DeDaran et al in view of Anthony and Mizumoto et al. She argues that DeDaran distinguishes from amended Claim 1 by a ground face that is located on a further side, diametrically opposite the first side, of the printed board, and by a first connection line and at least one further connection line being fed through in insulated fashion relative to the ground face, wherein the ground face is electrically connected via through-plated holes or via-holes. However, these missing features should be disclosed by Anthony and Mizumoto.

In applicants' opinion, in her rejection of the claims the Examiner has combined different references, which are not combinable as

a matter of obviousness, since Mizumoto does not describe or even suggest a device for suppressing high-frequency interference emissions. Instead, it just shows how to connect different layers of a printed circuit board by through holes 50 filled with insulating or conductive material (24, 25) and by additional via-holes (28), which – by the way – are not implemented as electrically conductive sleeves filled with a highly conductive metal but merely as hollows containing a conductive layer (29).

Applicant want to emphasize that since Anthony shows very small common mode filters (10, 110, 150, 160, 400, 680, 2012, 2012A, 1040) which are built as surface mounted devices, there is no need for a very low-impedance and interference-free connection within the housing of those filters realized by via-holes. In addition, with respect to Figs. 9C and 9D a person skilled in the art knows that the electrodes (682, 684, 686, 688, 690, 692) and the ground conductive plates (112) would not function as plates of capacitors, if they are short-circuited by through holes or via-holes.

Figure 14 and 15 of Anthony show two different layers, where the metalized ground surface (2016) covers substantial portions of the top, sides and bottom of double-sided carrier (2040). It is not disclosed that the common ground surfaces (2026) of filters (2012A and 2012B) are connected via through-plated holes or via-holes to the

metalized ground surface (2016). Instead, they are electrically connected directly to them, since due to the fact that the ground surface (2016) is located on both sides of the carrier (2024), there is absolutely no necessity in using through holes for a ground connection. The through hole plating (2020) of apertures (2018) mentioned by the Examiner and recited in paragraph 109 are not used for such a ground connection but for the two differential electrode bands (2028 and 2030), respectively. Furthermore, the through holes (2020) can not be realized as via-holes, since conductors (2034) flow into them which prevents the through holes (2020) from being filled with a highly conductive metal.

It is therefore believed to be clear that the rejection of the original claims over the combination of the DeDaran, Anthony and Mizumoto references cannot be considered as justifiable. The references are not combinable as a matter of obviousness, and the present invention cannot be considered as obvious from the references.

Claim 1 should be considered as patentably distinguishing over the art and should be allowed.

As for the dependent claims, these claims depend on Claim 1, they share its allowable features, and they should be allowed as well.

In connection with the Examiner's objection to the drawings, it is respectfully submitted that reference numeral 30 in the inventive interference suppressor identifies through-plated holes, while reference numeral 36 has been provided to show that the through-plated holes are embodied generally speaking as via-holes 36. It is believed that it is an accepted practice to identify a component in general with one reference numeral and then to provide another reference numeral to specify that the component is formed as a certain structure. If however the Examiner objects to the provision to two reference numerals 30 and 36, applicants will cancel one of the reference numerals. Also, additional Figure 5 has been submitted to show conductive sleeves and a conductive material arranged to make the corresponding connections.

In view of the above presented remarks and amendments, it is believed that the present application should be considered as allowable, and such action is earnestly solicited.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance,

then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Michael J. Striker', written over the printed name.

Michael J. Striker
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